Gabriel Joel Mitchell, Data Scientist

CONTACT
INFORMATION

email: *gajomi271828@gmail.com*
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SUMMARY

I am a data scientist with a diverse educational background in computational science, physics and biology (BA/MS/PhD). Specialist in dynamical systems modeling and time series analysis. Capable generalist with exposure in high performance computation, complex networks, machine learning and statistics. I love working with data!

PAST
EMPLOYMENT

Postdoctoral Scientist, Institute of Science and Technology Austria (2013-2015)
Developed models and simulations for animal behavioral dynamics from a sensory processing perspective. Advised students on research projects.

EDUCATION

Ph.D., Biology, Georgia Institute of Technology (2009-2013)
M.S. Physics, Georgia Institute of Technology (2009)
B.A. Computational Physics, Oregon State University (2007)

TECHNICAL
SKILLS AND
KNOWLEDGE

Theory and practice: time series modeling, machine learning, network analysis, functional programming, object oriented programming, high performance computing
Programming languages: Python, MATLAB, Julia, Clojure, Java, C, R, SQL
Systems and tooling: *nix/GNU, Jupyter notebooks, git, Spark

AWARDS AND
HONORS

GAANN Fellow, U.S. Department Of Education	2008
URISC Fellow, Oregon State University	2006
APS Minority in Physics Corporate Scholar, American Physical Society	2003

PUBLICATIONS

GJ Mitchell, G Tkacik. Extended generalized linear models for collective animal behavior. In preparation

GJ Mitchell, JS Weitz. Feasibility and stability od complex ecosystems. In preparation

GJ Mitchell, D Nelson, K Wiesenfeld, JS Weitz. Critical cell wall hole size for lysis in Gram-positive bacteria. J. R. Soc. Interface. 2013. vol. 10 no. 80 20120892

IK Jordan, A Conley, I Antonov, R Arthur, E Cook, G Cooper, B Jones, K Knipe, K Lee, X Liu, **GJ Mitchell**, P Pande, R Petit, S Qin, V Rajan, S Sarda, A Sebastian, S Tang, R Thapliyal, N Varghese, T Ye, L Katz, X Wang, L Rowe, M Frace, and L Mayer. Genome Sequences for Five Strains of the Emerging Pathogen Haemophilus haemolyticus. 2011. J Bacteriol. 193: 58795880

GJ Mitchell, D Nelson, JS Weitz. Quantifying enzymatic lysis: estimating the combined effects of chemistry, physiology and physics. 2010. Phys. Biol. 7 046002.
This work was distinguished as an IOP Highlight of the Year

CONTRIBUTED TALKS AND POSTERS	A statistical analysis ecosystem stability from local and global interaction structure (poster). Society for Mathematical Biology Meeting. Knoxville, TN. Jul 2012.
	Quantifying enzymatic lysis: from biophysical models to biotechnological characterization (poster). CSHL Computational Cell Biology Meeting. Cold Spring Harbor, NY. Mar 2011.
	Characterizing bacterial lysis by phage lytic enzymes using non-parametric data collapse (poster). The Third q-bio Conference. Santa Fe, NM. Aug 2009.

WORKSHOPS /CONFERENCES ATTENDED	Society for Mathematical Biology Meeting. Knoxville, TN.	Jul 2012
	CSHL Computational Cell Biology Meeting. Cold Spring Harbor, NY.	Mar 2011
	Microbes to Metazoans. Atlanta, GA.	Dec 2009
	The Third q-bio Conference. Santa Fe, NM.	Aug 2009
	IGTC Summer School in Mathematical Biology. Vancouver, BC.	Jun 2008
	Viral Paradigms Workshop. Atlanta, GA.	Jan 2008
	ARGUS Summer Workshop. Corvallis, OR.	Aug 2005

TEACHING EXPERIENCE	TA, Theoretical Ecology (BIOL 4422/6422)	2012
	Institute: Georgia Institute of Technology, Instructor: Prof. Joshua Weitz	
	TA, Problem Solving for Introductory Physics (PHYS 2802)	2008
	Institute: Georgia Institute of Technology, Instructor: Kenneth Barker	
	TA, Introductory Physics I (PHYS 2211)	2007
	Institute: Georgia Institute of Technology, Instructor: Eric Murray	
	TA, Scientific Computing (PH/CS/MTH 265)	2006
	Institute: Oregon State University, Instructor: Prof. Viktor Podolskiy	

PRESS	Cure for superbug 'a step closer'. UK Press Association (10/3/2010).
	Identifying enzymes to explode superbugs. IOP Blog (10/3/2010).

PROFESSIONAL MEMBERSHIPS	Society for Mathematical Biology
	Society for Industrial and Applied Mathematics

CITIZENSHIP	United States of America